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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Herald M. Baldonado, et al.

Serial No.: 10/066,421

Filed: 01/30/2002

For: Method and System of Wire Bonding Using Interposer Pads

Docket No.: TI-32857

Examiner: Clark, Sheila

Art Unit: 2815

Reply Brief

Mail Stop Appeal Brief
Commissioner for Patents
P.O. Box 1450
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Jay M. Cantor

Dear Sir:

In reply to the Examiner's Answer, it is initially noted that the allegation in paragraph (2) thereof is incorrect. The last paragraph on page 1 of the Appeal Brief clearly states that "No related appeals or interferences are known to Appellant".

With reference to paragraph (7) of the Examiner's Answer, it is noted that each of the groups of claims individually stands or falls together and that all the claims do not stand or fall together as may be implied from that paragraph.

With reference to claim 7, the trademarked term will be canceled subject to allowance without that term.

With reference to the rejections under 35 U.S.C. 112, first paragraph, the paragraph bridging pages 3 and 4 with reference to figure 2 clearly states that bonds 12 and 23 are ball bonds and bond 25 is a stitch bond. Furthermore, even were the specification not to state what is does, the figure itself shows that bonds 12 and 23 are ball bonds and bond 23 is a stitch bond. These are the two

principal types of bonds utilized in semiconductor production as is known even to a novice in the art. The two bonding wires mentioned in claim 1 could be wires 20 and 24 of figure 2. The interposer is clearly shown as element 21.

While there is a discussion as to claim 3 in the last paragraph on page 4 of the Examiner's Answer, it is noted that this claim was never on appeal. Note in the APPENDIX that claim 3 is listed as having been canceled.

The argument at page 5 of the Examiner's Answer, first paragraph, is clearly not understandable and without merit. Nowhere are input, output, supply and ground nodes of a semiconductor claimed.

Claims 1, 2 and 4 to 21 were rejected under 35 U.S.C. 102(a) as being anticipated by Schmidt et al. It is elementary that in order for such a rejection to be proper, it is imperative that a single reference teach all of the features as well as the function of each of the claimed features. As noted in the Brief on Appeal, this is not the case.

While Schmidt et al. shows an interposer 4 to which wires 6 and 7 are connected. A review of column 4 of Schmidt et al. clearly indicates that bonds 6a and 7a are ball bonds and bonds 6b and 7b are welds. Claim 1 specifically requires that the wire bonds on the interposer 21 be ball bonds, that the bond on the die be a ball bond and that the bond on the lead be a stitch bond. Clearly, no such structure is found in Schmidt et al. Accordingly, for this reason, claim 1 and the claims depending therefrom (claims 2 and 4 to 7) define patentably over Schmidt et al. under 35 U.S.C. 102(a).

Claim 8 recites the features discussed above with reference to claim 1 except that a plurality of interposer pads is also recited. The same argument therefore applies to claim 8 as well as claims 9 to 15 which depend from claim 8.

Claim 16 contains the features discussed above with reference to claim 8 except that it is in method format. Accordingly, the arguments presented above with reference to claim 8 as well as to claims 17 to 21 which depend from claim 16 are appropriate and incorporated by reference.

In view of the above remarks as well as the remarks presented in the Brief on Appeal, reversal of the final rejection and allowance of the appealed claims is urged that justice be done in the premises.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. M. Cantor', with a stylized flourish at the end.

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